

REMARKS

In the present Request for Continued Examination (RCE) of the above-referenced patent application, the Applicant hereby submits an Amendment, entry of which is earnestly solicited prior to continued examination. Prior to the RCE, claims 1-2, 4, 6, 8-16, 18, and 21-30, were pending in the present application and rejected.

In the present amendment, claims 1, 11, 12, 22, 23, and 30 have been amended. No claims have been canceled. Therefore, claims 1-2, 4, 6, 8-16, 18, and 21-30 as amended are pending for continued examination.

In the Office Action mailed on 23 May 2005 and the subsequent Advisory Action, the Examiner rejected pending claims of the present application under 35 U.S.C. Sect. 103(a) as being unpatentable over U.S. Patent No. 6,315,875 to Sasaki (hereinafter "Sasaki") in view of U.S. Patent Application Publication US 2004/0027730 to Lille (hereinafter "Lille"). In response, the Applicants respectfully submit that all pending claims of the present application are allowable over the prior art of record for at least the following reasons.

For an appropriate 35 U.S.C. Sect. 103(a) rejection, the prior art (alone or in combination) must teach or suggest each and every limitation in the claims. Also, there must be an adequate suggestion or motivation to combine the teachings of the prior art references. In the present case, the prior art fails to teach each and every claim limitation, and there is no adequate suggestion or motivation to combine the teachings of Sasaki and Lille as provided for in the Office Action.

First, the claims as amended provide the steps of:

performing a reactive ion etching (RIE) to remove end portions of the protective layer in end regions which surround the central region without removing any of the read sensor layers, to thereby leave a central protective portion of the protective layer underneath the first photoresist structure and the read sensor layers intact;

after performing the RIE and leaving the read sensor layers intact, performing an ion milling of the read sensor layers such that end portions of the read sensor layers are removed in the end regions and a central sensor portion remains underneath the first photoresist structure, to thereby define a stripe height for the read sensor;

In Sasaki, there are no teachings or suggestions to utilize a RIE in the end regions *without removing any of the read sensor layers*. In fact, such a step would run counter to the teachings of Sasaki. Specifically, Sasaki emphasizes a first etching step for etching *some of the layers making up the GMR element*. See e.g. the Abstract of Sasaki. In the present claims as amended, it is recited that the RIE fails to etch the read sensor layers. Note that, in a Section 103 rejection, it is not proper to modify a primary reference so as to defeat the main objective thereof.

Second, there is no adequate suggestion or motivation to utilize a chemical-mechanical polishing (CMP) based lift-off technique in combination with a protective barrier in defining a stripe height (and defining both a stripe height and a trackwidth) of a read sensor. In Lille, the CMP-based liftoff technique is utilized to define a trackwidth (TW) of a read sensor. In fact, the sole purpose of Lille is to define a narrow track width for a read sensor (e.g. see title of Lille: "NARROW TRACK READ SENSOR AND METHOD OF MAKING THE SAME"). Lille is directed to the employment of "lead overlays" (see Lille in FIG. 15 at 1302 and 1304) to narrowly define the read sensor in the trackwidth dimension. Hard bias and lead layers are subsequently deposited in the end regions after defining the trackwidth. As apparent, Lille is directed to use of CMP-based liftoff only with respect to trackwidth (TW). In Sasaki, there is no teaching of utilizing the steps of Lille with any stripe height (SH) definition process. Again, there is no teaching or suggestion to utilize a CMP-based lift-off technique to define the stripe

height of a read sensor. The most that might be argued based on the prior art of record is that the CMP-based liftoff technique could be used to define the trackwidth (TW) of the read sensor in Sasaki. However, this is not enough to reject the pending claims of the present application.

Based on the above, the Applicant submit that all pending claims are allowable over the prior art of record and that the present application is now in a condition suitable for allowance.

Thank you. Please feel free to contact the undersigned if it would expedite the prosecution of the present application.

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Respectfully Submitted,

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